promptly inform the regulatory authority of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the regulatory authority shall be notified immediately. The regulatory authority shall then notify the appropriate agencies that other emergency procedures are required to protect the public.

(b) *Permanent impoundments.* A permanent impoundment of water may be created, if authorized by the regulatory authority in the approved permit based upon the following demonstration:

(1) The size and configuration of such impoundment will be adequate for its intended purposes.

(2) The quality of impounded water will be suitable on a permanent basis for its intended use and, after reclamation, will meet applicable State and Federal water quality standards, and discharges from the impoundment will meet applicable effluent limitations and will not degrade the quality of receiving water below applicable State and Federal water quality standards.

(3) The water level will be sufficiently stable and be capable of supporting the intended use.

(4) Final grading will provide for adequate safety and access for proposed water users.

(5) The impoundment will not result in the diminution of the quality and quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial, recreational, or domestic uses.

(6) The impoundment will be suitable for the approved postmining land use.

(c) *Temporary impoundments.* (1) The regulatory authority may authorize the construction of temporary impoundments as part of underground mining activities.

(2) In lieu of meeting the requirements in paragraph (a)(9)(i) of this section, the regulatory authority may approve an impoundment that relies primarily on storage to control the runoff from the design precipitation event when it is demonstrated by the operator and certified by a qualified registered professional engineer or qualified registered professional land surveyor in accordance with §784.16(a) of this chapter that the impoundment will safely control the design precipitation event, the water from which shall be safely removed in accordance with current, prudent, engineering practices. Such an impoundment shall be located where failure would not be expected to cause loss of life or serious property damage, except where:

(i) Impoundments meeting the SCS Class B or C criteria for dams in TR–60, or the size or other criteria of §77.216(a) of this title shall be designed to control the precipitation of the probable maximum precipitation of a 6-hour event, or greater event specified by the regulatory authority.

(ii) Impoundments not included in paragraph (c)(2)(i) of this section shall be designed to control the precipitation of the 100-year 6-hour event, or greater event specified by the regulatory authority.

[48 FR 44005, Sept. 26, 1983, as amended at 50 FR 16200, Apr. 24, 1985; 53 FR 43607, Oct. 27, 1988; 59 FR 53030, 53031, Oct. 20, 1994; 66 FR 14318, Mar. 12, 2001]

§ 817.56 Postmining rehabilitation of sedimentation ponds, diversions, impoundments, and treatment facilities.

Before abandoning a permit area or seeking bond release, the operator shall ensure that all temporary structures are removed and reclaimed, and that all permanent sedimentation ponds, diversions, impoundments, and treatment facilities meet the requirements of this chapter for permanent structures, have been maintained properly, and meet the requirements of the approved reclamation plan for permanent structures and impoundments. The operator shall renovate such structures if necessary to meet the requirements of this chapter and to conform to the approved reclamation plan.

[48 FR 44006, Sept. 26, 1983]

§ 817.57 Hydrologic balance: Stream buffer zones.

(a) No land within 100 feet of a perennial stream or an intermittent stream shall be disturbed by underground mining activities, unless the regulatory authority specifically authorizes underground mining activities closer to,

or through, such a stream. The regulatory authority may authorize such activities only upon finding that—

(1) Underground mining activities will not cause or contribute to the violation of applicable State or Federal water quality standards and will not adversely affect the water quantity and quality or other environmental resources of the stream; and

(2) If there will be a temporary or permanent stream-channel diversion, it will comply with § 817.43.

(b) The area not to be disturbed shall be designated as a buffer zone, and the operator shall mark it as specified in § 817.11.

[48 FR 30328, June 30, 1983, as amended at 48 FR 44781, Sept. 30, 1983]

§ 817.59 Coal recovery.

Underground mining activities shall be conducted so as to maximize the utilization and conservation of the coal, while utilizing the best technology currently available to maintain environmental integrity, so that reaffecting the land in the future through surface coal mining operations is minimized.

§ 817.61 Use of explosives: General requirements.

(a) Sections 817.61–817.68 apply to surface blasting activities incident to underground coal mining, including, but not limited to, initial rounds of slopes and shafts.

(b) Each operator shall comply with all applicable State and Federal laws and regulations in the use of explosives.

(c) *Blasters.* (1) No later than 12 months after the blaster certification program for a State required by part 850 of this chapter has been approved under the procedures of subchapter C of this chapter, all surface blasting operations incident to underground mining in that State shall be conducted under the direction of a certified blaster. Before that time, all such blasting operations in that State shall be conducted by competent, experienced persons who understand the hazards involved.

(2) Certificates of blaster certification shall be carried by blasters or shall be on file at the permit area during blasting operations.

(3) A blaster and at least one other person shall be present at the firing of a blast.

(4) Any blaster who is responsible for conducting blasting operations at a blasting site shall:

(i) Be familiar with the site-specific performance standards; and

(ii) Give direction and on-the-job training to persons who are not certified and who are assigned to the blasting crew or assist in the use of explosives.

(d) *Blast design.* (1) An anticipated blast design shall be submitted if blasting operations will be conducted within—

(i) 1,000 feet of any building used as a dwelling, public building, school, church or community or institutional building; or

(ii) 500 feet of active or abandoned underground mines.

(2) The blast design may be presented as part of a permit application or at a time, before the blast, approved by the regulatory authority.

(3) The blast design shall contain sketches of the drill patterns, delay periods, and decking and shall indicate the type and amount of explosives to be used, critical dimensions, and the location and general description of structures to be protected, as well as a discussion of design factors to be used, which protect the public and meet the applicable airblast, flyrock, and ground-vibration standards in § 817.67.

(4) The blast design shall be prepared and signed by a certified blaster.

(5) The regulatory authority may require changes to the design submitted.

[48 FR 9492, Mar. 4, 1983, and 48 FR 9809, Mar. 8, 1983, as amended at 51 FR 19461, May 29, 1986]

§ 817.62 Use of explosives: Preblasting survey.

(a) At least 30 days before initiation of blasting, the operator shall notify, in writing, all residents or owners of dwellings or other structures located within ½ mile of the permit area how to request a preblasting survey.

(b) A resident or owner of a dwelling or structure within ½ mile of any part of the permit area may request a preblasting survey. This request shall